

FACT SHEET FOR NPDES PERMIT NO. WA0001546
TRANSALTA CENTRALIA GENERATION L.L.C.
CENTRALIA STEAM PLANT

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INTRODUCTION

The Federal Clean Water Act (FCWA, 1972, and later modifications, 1977, 1981, and 1987) established water quality goals for the navigable (surface) waters of the United States. One of the mechanisms for achieving the goals of the Clean Water Act is the National Pollutant Discharge Elimination System (NPDES) of permits, which is administered by the Environmental Protection Agency (EPA). The EPA has delegated responsibility to administer the NPDES permit program to the state of Washington on the basis of Chapter 90.48 Revised Code of Washington (RCW) which defines the Department of Ecology's (Department) authority and obligations in administering the wastewater discharge permit program.

The regulations adopted by the State include procedures for issuing permits [Chapter 173-220 Washington Administrative Code (WAC)], water quality criteria for surface and ground waters (Chapters 173-201A and 200 WAC), and sediment management standards (Chapter 173-204 WAC). These regulations require that a permit be issued before discharge of wastewater to waters of the state is allowed. The regulations also establish the basis for effluent limitations and other requirements which are to be included in the permit. One of the requirements (WAC 173-220-060) for issuing a permit under the NPDES permit program is the preparation of a draft permit and an accompanying fact sheet. Public notice of the availability of the draft permit is required at least thirty days before the permit is issued (WAC 173-220-050). The fact sheet and draft permit are available for review (see Appendix A--Public Involvement of the fact sheet for more detail on the Public Notice procedures).

The fact sheet and draft permit have been reviewed by the Permittee. Errors and omissions identified in this review have been corrected before going to public notice. After the public comment period has closed, the Department will summarize the substantive comments and the response to each comment. The summary and response to comments will become part of the file on the permit and parties submitting comments will receive a copy of the Department's. The fact sheet will not be revised. Comments and the resultant changes to the permit will be summarized in Appendix C--Response to Comments.

GENERAL INFORMATION	
Applicant	TransAlta Centralia Generation L.L.C.
Facility Name and Address	Centralia Steam Plant 913 Big Hanaford Road Centralia, WA 98531
Type of Facility	Steam Electric Generating Station
SIC Code	4911
Discharge Locations	Waterbody name: Hanaford Creek Outfall 001 Latitude: 46° 45' 55" N Longitude: 122° 51' 52" W Outfall 002 Latitude: 46° 45' 27" N Longitude: 122° 51' 20" W Outfall 004 Latitude: 46° 45' 29" N Longitude: 122° 52' 02" W Outfall 005 Latitude: 46° 44' 57" N Longitude: 122° 50' 48" W
Water Body ID Number	WA-23-1043

BACKGROUND INFORMATION

DESCRIPTION OF THE FACILITY

HISTORY

This plant has been in continuous operation since 1971. In order to comply with new regulations, TransAlta installed a wet flue gas desulphurization system in 2001 to reduce Sulfur Dioxide emissions at the plant. Construction of a 248 megawatt gas-fired combined cycle combustion turbine facility was completed in 2002, supplementing the coal-fired plant. It is now and has always been an NPDES major facility.

INDUSTRIAL PROCESS

The Centralia Steam Plant is a coal burning electrical power generating plant and a natural gas fired gas turbine/steam turbine generating plant. It burns coal mined in the adjacent coal mine and coal mined in Montana and Wyoming. The source of natural gas is Canada. It can generate 1,405,000 kilowatts of electricity from the coal fired facility and 48,000 kilowatts of electrical power from the gas fired plant (BHP). Demand is typically greater in the winter. There are occasional shutdowns in the summer when demand is low which are used for maintenance at the facility. When operating, electricity is generated continuously for months at a time. The approximately 250 employees work a combination of 8 and 12-hour shifts per day on regular Monday - Friday business hours to maintain and operate the plant 24 hours a day. The plant uses approximately 26,000,000 gallons of water per day when operating of which approximately 17,300,000 gallons per day are evaporated to cool the both generating processes. Process water use is diagrammed in Attachment 5 to this fact sheet. Water is drawn from the Skookumchuck River and discharged to Hanaford Creek. Domestic sewage is also generated on site both at this plant and at the coal processing facility adjacent to the power plant.

Wastewater generation is as follows:

Source	Approximate Volume in MGD
Coal Pile Storm Runoff	0.5
Plant Storm Runoff	0.4
Sanitary Effluent	0.01
Cooling Tower Blowdown	2.3
Misc. Power Plant Flows	0.06
Water Treatment Backwash and Reverse Osmosis Brine Reject	0.43

Between 27.0 and 129.6 million gallons of wastewater are applied to tow areas (61 acres) during the irrigation season of between 100 to 150 days. These two areas are designated as the West Irrigation Area (WIA), and the Lower Irrigation Area (LIA). The WIA occupies 38 acres in the forested upland south of the facility. The LIA occupies 23 acres in the flat lying valley bottom of Hanaford Creek. The average application rates range from 200 to 750 gallons per minute.

The geology of the WIA consists of a thin layer of loam or silty clay loam soil overlying sedimentary bedrock that consists of siltstone, claystone, coal seams and some carbonaceous shale. This overlying soil

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transmits water better than the underlying bedrock and the bedrock limits the downward movement of water. As a result, the target zone for monitoring occurs along the soil/bedrock interface. The regional aquifer occurs at depth within the bedrock.

Four shallow seepage stations have been installed in the soil overlying the bedrock and are designated GWS 1 through GWS 4. One seepage station, GWS 2, is unaffected by the irrigation of wastewater and is used to define background water quality. Three seepage stations are installed downslope of the WIA and are intended to monitor the quality of water moving from the irrigated areas.

In addition one monitoring well, AFT313, has been installed in the shallow alluvium of Hanaford Creek down gradient of the spray field. Another well, 81E28P, is completed in the shallow alluvium of Hanaford Creek to determine background water quality.

Chemicals used in treatment are chemicals used to aid flocculation and settling in the coal pile runoff and sodium hypochlorite used to disinfect the sanitary effluent and the cooling tower water.

This is a permit renewal.

DISCHARGE OUTFALL.

Outfall 002 finally discharges through Outfall 001. Outfall 001 is an overbank discharge into Hanaford Creek.

PERMIT STATUS

The previous permit for this facility was issued on July 14, 2000. The previous permit placed effluent limitations on total chlorine residual, flow, oil and grease, total suspended solids, pH, dissolved oxygen, temperature, turbidity, BOD₅, and fecal coliform.

An application for permit renewal was submitted to the Department on June 30, 2004, and accepted by the Department on September 7, 2004.

SUMMARY OF COMPLIANCE WITH THE PREVIOUS PERMIT

The facility last received an inspection on January 23, 1995. This inspection was conducted as a joint inspection with the Environmental Protection Agency.

Table 1: Compliance

Date	Outfall	Parameter	Type	Unit	Value
10/01/02	001	Chlorine, Total Residual	Average, 30 day	mg/L	0.11
10/01/02	001	Chlorine, Total Residual	Maximum Day	mg/L	0.12
01/01/03	002	Flow	Maximum Day	mgd	
08/01/03	002	Flow	Maximum Day	mgd	
05/01/03	002	Solids, Total Suspended	Average, 30 day	mg/L	77
08/01/03	002	Solids, Total Suspended	Average, 30 day	mg/L	94.9
05/01/03	002	Solids, Total Suspended	Maximum Day	mg/L	82
08/01/03	002	Solids, Total Suspended	Maximum Day	mg/L	139

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Date	Outfall	Parameter	Type	Unit	Value
06/01/03	004	Oil and Grease	Maximum Day	N/A	Sheen
07/01/03	004	Oil and Grease	Maximum Day	N/A	Sheen

WASTEWATER CHARACTERIZATION

The proposed wastewater discharge is characterized for the following regulated parameters:

Table 1: Wastewater Characterization, Outfall 001

Parameter ¹	Concentration
BOD ₅	ND
COD	15 mg/L
TOC	7 mg/L
TSS	9 mg/L
Temperature (Winter)	10 °C
pH	7 to 9.5 S.U.
Total Residual Chlorine	0.11 mg/L
Fecal Coliforms	30 mpn/100mL
Fluoride	0.53 mg/L
Nitrate-Nitrite	1.15 mg/L
Total Organic Nitrogen	1.0 mg/L
Phosphorous	0.25 mg/L
Sulfate ²	339 mg/L
Barium	0.13 mg/L
Boron	5.9 mg/L
Magnesium	20 mg/L
Molybdenum	0.25 mg/L
Manganese ²	0.52 mg/L
¹ Taken from the permit application	
² Sulfate and Manganese have the potential to violate the groundwater standards.	

TABLE 2: Wastewater Characterization, Outfall 002*

Parameter	Concentration
BOD ₅	17 mg/L
Total Residual Chlorine	1.16mg/L
Fecal Coliforms	45 mpm/100mL
Flow	15000 gpd
pH	6.3-8.5
Total Suspended Solids	22 mg/L
* Taken from the Department WPLCS Database	

PROPOSED PERMIT LIMITATIONS

Federal and state regulations require that effluent limitations set forth in a NPDES permit must be either technology- or water quality-based. Wastewater must be treated using all known, available and reasonable technology (AKART). Technology-based limitations for surface water discharges are set by regulation or developed on a case-by-case basis (40 CFR 125.3, and Chapter 173-220 WAC). Water quality-based limitations are based upon compliance with the Surface Water Quality Standards (Chapter 173-201A WAC), Ground Water Standards (Chapter 173-200 WAC), Sediment Quality Standards (Chapter 173-204 WAC) or the National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992). The minimum requirements to demonstrate compliance with the AKART standard will be developed over time using the data collected from the testing required in this permit and conforming to the *Guidelines for the Preparation of engineering Reports for Industrial Wastewater Land Application System, Washington Department of Ecology, May 1993*. The more stringent of these two limits must be chosen for each of the parameters of concern. Each of these types of limits is described in more detail below.

The limits in this permit are based in part on information received in the application. The effluent constituents in the application were evaluated on a technology- and water quality-basis. The limits necessary to meet the rules and regulations of the state of Washington were determined and included in this permit. The Department does not develop effluent limits for all pollutants that may be reported on the application as present in the effluent. Some pollutants are not treatable at the concentrations reported, are not controllable at the source, are not listed in regulation, and do not have a reasonable potential to cause a water quality violation. If significant changes occur in any constituent, as described in 40 Code of Federal Regulations (CFR) 122.42(a), the Permittee is required to notify the Department.

DESIGN CRITERIA

In accordance with WAC 173-220-150 (1)(g), flows or waste loadings shall not exceed approved design criteria. The original design capacity of the ponds is not known, and in any case, varies with solids buildup in the ponds.

The design criteria for this treatment facility for flow is a 100-year recurrence storm.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

Outfall 001

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Flow: Flow is limited by the hydraulic capacity of the system. See *DESIGN CRITERIA* above.

Total Residual Chlorine: This limit is set at the detection limit.

Oil and Grease: The limit for oil and grease is set at the limit in the Categorical Standards, 40 CFR 423, Steam Electric Generating Point source Category.

Total Suspended Solids: The limit for total suspended solids is set at the limit in the Categorical Standards, 40 CFR 423, Steam Electric Generating Point source Category.

pH Range: The pH range specified here (6 to 10 S.U.) exceeds the common range set for all discharges to waters of the state of Washington and the EPA categorical limit. The increased pH allowed here occurs during algae blooms in the treatment lagoons. Since 1987 no exceedance of the limits has occurred that was detectable downstream of outfall 001, nor has any rise in pH been detected from the comparison of simultaneous upstream and downstream samples. A mixing zone study conducted by Ecology using some data provided by Pacificorp (the previous Permittee) showed that a pH of 10 was diluted to water quality standards within the regulatory limits of the mixing zone.

Outfall 002

Flow: The flow limit is set at 36,000 gpd, the design capacity of the plant as justified by the permit application.

Biochemical Oxygen Demand, Five Day: This parameter is set at the limit stated in WAC 173-221, Discharge Standards and Effluent Limitations for Domestic Wastewater Facilities, average monthly at 30 mg/l and maximum day at 45 mg/l.

Total Suspended Solids: This parameter is set at the limit stated in WAC 173-221, Discharge Standards and Effluent Limitations for Domestic Wastewater Facilities, average monthly at 30 mg/l and maximum day at 45 mg/l.

Fecal Coliform: This parameter is set at the limit stated in WAC 173-221, Discharge Standards and Effluent Limitations for Domestic Wastewater Facilities, average day 200/100ml and maximum daily at 400/100ml.

pH: This parameter is set at the limit stated in WAC 173-221, Discharge Standards and Effluent Limitations for Domestic Wastewater Facilities, 6 to 9 S.U.

Chlorine Residual: This limit (2mg/l) has been set at the level attained throughout the previous permit period. Since discharge from this plant goes directly to the process water treatment lagoons, its inclusion as a limit is moot since it does not discharge to waters of the state. The meaningful limit at this site is the chlorine residual at Outfalls 001 and 005 which do discharge to waters of the state. No exceedance of the total residual chlorine limit has been reported in the DMRs submitted during the period of the last permit.

Outfall 005

Flow: Flow is limited by the hydraulic capacity of the system. See *DESIGN CRITERIA* above.

Oil and Grease: The limit for oil and grease is set at the limit in the Categorical Standards, 40 CFR 423, Steam Electric Generating Point source Category.

Temperature: Limit is set at the limit for receiving water in a class A stream.

SURFACE WATER QUALITY-BASED EFFLUENT LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's surface waters, WAC 173-201A-060 states that waste discharge permits shall be conditioned such that the discharge will meet established Surface Water Quality Standards. The Washington State Surface Water Quality Standards (Chapter 173-201A WAC) is a state regulation designed to protect the beneficial uses of the surface waters of the state. Surface water quality-based effluent limitations may be based on an individual waste load allocation (WLA) or on a WLA developed during a basin wide total maximum daily loading study (TMDL).

Outfall 001

Dissolved Oxygen: This limit is set at a minimum of 8 mg/L in the receiving water as required by WAC 173-201A. Sampling is done upstream and down stream to determine the effect of the discharge on the receiving water.

Temperature: This limit is set at a maximum of 18°C in the receiving water when the background temperature is below 18° or background plus 0.3°C when background is above 18°C as required by WAC 173-201A.. Sampling is done upstream for background and down stream to determine the effect of the discharge on the receiving water.

Turbidity: This limit is set at a maximum of 50 NTU in the receiving water when the background turbidity is below 50 NTU or background plus 10 percent when background is above 50 NTU as required by WAC 173-201A. Sampling is done upstream for background and down stream to determine the effect of the discharge on the receiving water.

Outfall 005

Dissolved Oxygen: This limit is set at a minimum of 8 mg/l as required by WAC 173-201A. Since there is no definable upstream or downstream at this location, the limit is set at the limit in the regulation.

Temperature: This limit is set at a maximum of 18° Celsius as required by WAC 173-201A. Since there is no definable upstream or downstream at this location, the limit is set at the limit in the regulation.

Turbidity: This limit is set at a maximum of 50 NTU as required by WAC 173-201A. Since there is no definable upstream or downstream at this location, the limit is set at the limit in the regulation.

NUMERICAL CRITERIA FOR THE PROTECTION OF AQUATIC LIFE

"Numerical" water quality criteria are numerical values set forth in the State of Washington's Water Quality Standards for Surface Waters (Chapter 173-201A WAC). They specify the levels of pollutants allowed in a receiving water while remaining protective of aquatic life. Numerical criteria set forth in the Water Quality Standards are used along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limitations, they must be used in a permit.

NUMERICAL CRITERIA FOR THE PROTECTION OF HUMAN HEALTH

The U.S. EPA has promulgated 91 numeric water quality criteria for the protection of human health that are applicable to Washington State (EPA 1992). These criteria are designed to protect humans from cancer and other disease and are primarily applicable to fish and shellfish consumption and drinking water from surface waters.

NARRATIVE CRITERIA

In addition to numerical criteria, "narrative" water quality criteria (WAC 173-201A-030) limit toxic, radioactive, or deleterious material concentrations below those which have the potential to adversely affect characteristic water uses, cause acute or chronic toxicity to biota, impair aesthetic values, or adversely affect human health. Narrative criteria protect the specific beneficial uses of all fresh (WAC 173-201A-130) and marine (WAC 173-201A-140) waters in the state of Washington.

ANTIDegradation

The state of Washington's Antidegradation Policy requires that discharges into a receiving water shall not further degrade the existing water quality of the water body. In cases where the natural conditions of a receiving water are of lower quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. Similarly, when the natural conditions of a receiving water are of higher quality than the criteria assigned, the natural conditions shall constitute the water quality criteria. More information on the State Antidegradation Policy can be obtained by referring to WAC 173-201A-070.

The Department has reviewed existing records and is unable to determine if ambient water quality is either higher or lower than the designated classification criteria given in Chapter 173-201A WAC; therefore, the Department will use the designated classification criteria for this water body in the proposed permit. The discharges authorized by this proposed permit should not cause a loss of beneficial uses.

CRITICAL CONDITIONS

Surface water quality-based limits are derived for the waterbody's critical condition, which represents the receiving water and waste discharge condition with the highest potential for adverse impact on the aquatic biota, human health, and existing or characteristic water body uses.

MIXING ZONES

The Water Quality Standards allow the Department to authorize mixing zones around a point of discharge in establishing surface water quality-based effluent limits. Both "acute" and "chronic" mixing zones may be authorized for pollutants that can have a toxic effect on the aquatic environment near the point of discharge. The concentration of pollutants at the boundary of these mixing zones may not exceed the numerical criteria for that type of zone. Mixing zones can only be authorized for discharges that are receiving all known, available, and reasonable methods of prevention, control and treatment (AKART) and in accordance with other mixing zone requirements of WAC 173-201A-100.

The National Toxics Rule (EPA, 1992) allows the chronic mixing zone to be used to meet human health criteria.

DESCRIPTION OF THE RECEIVING WATER

The facility discharges to Hanaford Creek which is designated as a Class A receiving water in the vicinity of the outfall. Other nearby point source outfalls includes outfalls from the Centralia Coal Mine. Characteristic uses include the following: water supply (domestic, industrial, agricultural); stock watering; fish migration; fish and shellfish rearing, spawning and harvesting; wildlife habitat; primary contact recreation; sport fishing; boating and aesthetic enjoyment; commerce and navigation. Water quality of this class shall meet or exceed the requirements for all or substantially all uses.

SURFACE WATER QUALITY CRITERIA

Applicable criteria are defined in Chapter 173-201A WAC for aquatic biota. In addition, U.S. EPA has promulgated human health criteria for toxic pollutants (EPA 1992). Criteria for this discharge are summarized below:

Fecal Coliforms	100 organisms/100 mL maximum geometric mean
Dissolved Oxygen	8 mg/L minimum
Temperature	18 degrees Celsius maximum or incremental increases above background
pH	6.5 to 8.5 standard units
Turbidity	less than 5 NTU above background
Toxics	No toxics in toxic amounts

CONSIDERATION OF SURFACE WATER QUALITY-BASED LIMITS FOR NUMERIC CRITERIA

The Permittee prepared a mixing zone study for the permit expiring in 2000. This stated that the receiving stream was too small for a mixing zone study to be conclusive. This is incorrect. The Department and EPA procedures have a valid mixing zone procedure that has been used by the permit writer to calculate the dilution of the discharge from Outfall 001 in Hanaford Creek to determine the pH limit. This procedure is as follows:

In most cases, the mixing zone is calculated using the seven day flow of the stream at a reoccurrence interval of ten years using stream flow records for 12 months of the year. In this case, Outfall 001 is not used during the time of low flow in the creek due to temperature problems, so a conventional 7Q10 determination is not applicable. In addition, all permits needs to define a mixing zone for those few months when alga growth causes high pH in the treatment lagoons.

For this study, 21 pH exceedance events occurring between May 1992 and July 1994 were selected for inclusion in the calculations of receiving water concentrations and mixing zone boundaries. Using data presented in the CH2M Hill Mixing Zone Study Report for the Centralia Steam Plant, TransAlta Centralia Generation L.L.C., Portland Oregon, March 1995 and DMRs on file at the Department a mixing zone was calculated for this facility. No pH violations were found for this interval. It was concluded that an end of pipe pH of 10 would not cause a water quality violation.

WHOLE EFFLUENT TOXICITY (WET)

The WET tests during effluent characterization indicate that no reasonable potential exists to cause receiving water acute toxicity, and the Permittee will not be given an acute WET limit and will only be required to retest the effluent prior to application for permit renewal in order to demonstrate that acute toxicity has not increased in the effluent.

If the Permittee makes process or material changes which, in the Department's opinion, results in an increased potential for effluent toxicity, then the Department may require additional effluent characterization in a regulatory order, by permit modification, or in the permit renewal. Toxicity is assumed to have increased if WET testing conducted for submission with a permit application fails to meet the performance standards in WAC 173-205-020, "whole effluent toxicity performance standard."

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The Permittee may demonstrate to the Department that changes have not increased effluent toxicity by performing additional WET testing after the time the process or material changes have been made.

The WET tests during effluent characterization indicate that no reasonable potential exists to cause receiving water chronic toxicity, and the Permittee will not be given a chronic WET limit and will only be required to retest the effluent prior to application for permit renewal in order to demonstrate that chronic toxicity has not increased in the effluent.

If the Permittee makes process or material changes which, in the Department's opinion, results in an increased potential for effluent toxicity, then the Department may require additional effluent characterization in a regulatory order, by permit modification, or in the permit renewal. Toxicity is assumed to have increased if WET testing conducted for submission with a permit application fails to meet the performance standards in WAC 173-205-020, "whole effluent toxicity performance standard." The Permittee may demonstrate to the Department that changes have not increased effluent toxicity by performing additional WET testing after the time the process or material changes have been made.

HUMAN HEALTH

Washington's water quality standards now include 91 numeric health-based criteria that must be considered in NPDES permits. These criteria were promulgated for the state by the U.S. EPA in its National Toxics Rule (Federal Register, Volume 57, No. 246, Tuesday, December 22, 1992).

The Department has determined that the applicant's discharge does not contain chemicals of concern based on existing data or knowledge.

SEDIMENT QUALITY

The Department has promulgated aquatic sediment standards (Chapter 173-204 WAC) to protect aquatic biota and human health. These standards state that the Department may require Permittees to evaluate the potential for the discharge to cause a violation of applicable standards (WAC 173-204-400).

The Department has determined through a review of the discharger characteristics and effluent characteristics that this discharge has no reasonable potential to violate the Sediment Management Standards.

GROUND WATER QUALITY LIMITATIONS

The Department has promulgated Ground Water Quality Standards (Chapter 173-200 WAC) to protect beneficial uses of ground water. Permits issued by the Department shall be conditioned in such a manner so as not to allow violations of those standards (WAC 173-200-100).

GROUND WATER QUALITY-BASED EFFLUENT LIMITATIONS

In order to protect existing water quality and preserve the designated beneficial uses of Washington's ground waters including the protection of human health, WAC 173-200-100 states that waste discharge permits shall be conditioned in such a manner as to authorize only activities that will not cause violations of the Ground Water Quality Standards. Drinking water is the beneficial use generally requiring the highest quality of ground water. Providing protection to the level of drinking water standards will protect a great variety of existing and future beneficial uses.

Applicable ground water criteria as defined in Chapter 173-200 WAC and in RCW 90.48.520 for this discharge include the following:

Table 2: Ground Water Quality Criteria

pH	6.5 to 8.5 standard units
Total Coliform Bacteria	1 Colony/ 100 mL
Total Dissolved Solids	500 mg/L
Chloride	250 mg/L
Fluoride	4 mg/L
Sulfate	250 mg/L
Nitrate-N	10 mg/L
Barium	1.0 mg/L
Cadmium	0.010 mg/L
Chromium	0.050 mg/L
Copper	1.0 mg/L
Lead	0.010 mg/L
Mercury	0.002 mg/L
Chloroform	0.007 mg/L
Toxics	No toxics in toxic amounts

The Department has reviewed existing records and is unable to determine if background ground water quality is either higher or lower than the criteria given in Chapter 173-200 WAC; therefore, the Department will use the criteria expressed in the regulation in the proposed permit. The discharges authorized by this proposed permit are not expected to interfere with beneficial uses.

COMPARISON OF EFFLUENT LIMITS WITH THE EXISTING PERMIT ISSUED July 14, 2000

OUTFALL 001

Parameter	Existing Limits	Proposed Limits
Total Chlorine Residual, mg/l	0.10 avg., 0.10 max.	0.20 avg., 0.20 max.
Flow, mgd	2.4 avg., 10 max.	6.36 avg., 12.12 max.
Oil and Grease, mg/l	15 avg., 20 max.	15 avg., 20 max.
Total Suspended Solids, mg/l	30 avg., 100 max	30 avg., 100 max
pH, S.U.	6 to 10	6 to 10
Dissolved Oxygen, mg/l	8.0 min.	8.0 min.
Temperature, ° C	18 when background is less than 18, Background + 0.3 when background is greater than 18.	18 when background is less than 18, Background + 0.3 when background is greater than 18.

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Parameter	Existing Limits	Proposed Limits
Turbidity, NTU	5 over background when background is less than 50, Maximum 10% increase over background when background is over 50	5 over background when background is less than 50, Maximum 10% increase over background when background is over 50

OUTFALL 002

Parameter	Existing Limits	Proposed Limits
Flow, gpd	20,000, avg. and 20,000, max.	20,000, avg. and 36,000 max.
Biochemical Oxygen Demand, 5 day, mg/l	30 avg., 45 max.	30 avg., 45 max.
Total Suspended Solids, mg/l	30 avg., 45 max.	30 avg., 45 max.
Fecal Coliform, No./100 ml	200/100 avg., 400/100 max	200/100 avg., 400/100 max
pH, S.U.	6 to 9	6 to 9
Total Chlorine Residual, mg/l	0.10 avg., 10 max.	0.20 avg., 0.20 max.

OUTFALL 005

Parameter	Existing Limits	Proposed Limits
Flow, mgd	2.4 avg., 10 max.	2.4 avg., 10 max.
Oil and Grease, mg/l	15 max., 10 avg.	15 max., 10 avg.

MONITORING REQUIREMENTS

Monitoring, recording, and reporting are required (WAC 173-220-210 and 40 CFR 122.41) to verify that the treatment process is functioning correctly and the effluent limitations are being achieved.

The monitoring schedule for surface water and ground water is detailed in the proposed permit under Condition S.2. Specified monitoring frequencies take into account the quantity and variability of the discharge, the treatment method, past compliance, significance of pollutants, and cost of monitoring.

Outfall 003 has been abandoned since the Co-Generation Station was built over it.

LAB ACCREDITATION

With the exception of certain parameters the permit requires all monitoring data to be prepared by a laboratory registered or accredited under the provisions of Chapter 173-50 WAC, *Accreditation of Environmental Laboratories*.₂

OTHER PERMIT CONDITIONS

REPORTING AND RECORDKEEPING

The conditions of S3 are based on the authority to specify any appropriate reporting and recordkeeping requirements to prevent and control waste discharges (WAC 273-220-210).

IRRIGATION AND CROP MANAGEMENT REPORT

The Permittee is required to submit an annual irrigation and crop management report and a summary irrigation and crop management report upon application for permit renewal.

SPILL PLAN

The Department has determined that the Permittee stores a quantity of chemicals that have the potential to cause water pollution if accidentally released. The Department has the authority to require the Permittee to develop best management plans to prevent this accidental release under section 402(a)(1) of the Federal Water Pollution Control Act (FWPCA) and RCW 90.48.080.

The Permittee has developed a plan for preventing the accidental release of pollutants to state waters and for minimizing damages if such a spill occurs. The proposed permit accepts the spill plan submitted with the permit application as fulfilling the requirements for the proposed permit.

SOLID WASTE PLAN

The Department has determined that the Permittee has a potential to cause pollution of the waters of the state from leachate of solid waste.

This proposed permit requires, under authority of RCW 90.48.080, that the Permittee develop a solid waste plan to prevent solid waste from causing pollution of waters of the state. The plan submitted with the permit application is accepted for this permit.

TREATMENT SYSTEM OPERATING PLAN

In accordance with state and federal regulations, the Permittee is required to take all reasonable steps to properly operate and maintain the treatment system (40 CFR 122.41(e)) and WAC 173-220-150 (1)(g). An operation and maintenance manual will be submitted as required by state regulation for the construction of wastewater treatment facilities (WAC 173-240-150). It has been determined that the implementation of the procedures in the Treatment System Operating Plan is a reasonable measure to ensure compliance with the terms and limitations in the permit.

GENERAL CONDITIONS

General Conditions are based directly on state and federal law and regulations and have been standardized for all individual industrial NPDES permits issued by the Department.

PERMIT ISSUANCE PROCEDURES

PERMIT MODIFICATIONS

The Department may modify this permit to impose numerical limitations, if necessary to meet Water Quality Standards for Surface Waters, Sediment Quality Standards, or Water Quality Standards for Ground Waters, based on new information obtained from sources such as inspections, effluent monitoring, outfall studies, and effluent mixing studies.

The Department may also modify this permit as a result of new or amended state or federal regulations.

RECOMMENDATION FOR PERMIT ISSUANCE

This proposed permit meets all statutory requirements for authorizing a wastewater discharge, including those limitations and conditions believed necessary to control toxics, protect human health, aquatic life, and the beneficial uses of waters of the State of Washington. The Department proposes that this proposed permit be issued for a maximum of five years.

REFERENCES FOR TEXT AND APPENDICES

Environmental Protection Agency (EPA)

1992. National Toxics Rule. Federal Register, V. 57, No. 246, Tuesday, December 22, 1992.

1991. Technical Support Document for Water Quality-based Toxics Control. EPA/505/2-90-001.

1988. Technical Guidance on Supplementary Stream Design Conditions for Steady State Modeling. USEPA Office of Water, Washington, D.C.

1985. Water Quality Assessment: A Screening Procedure for Toxic and Conventional Pollutants in Surface and Ground Water. EPA/600/6-85/002a.

1983. Water Quality Standards Handbook. USEPA Office of Water, Washington, D.C.

Tsivoglou, E.C., and J.R. Wallace.

1972. Characterization of Stream Reaeration Capacity. EPA-R3-72-012. (Cited in EPA 1985 op.cit.)

Washington State Department of Ecology.

1994. Permit Writer's Manual. Publication Number 92-109

Wright, R.M., and A.J. McDonnell.

1979. In-stream Deoxygenation Rate Prediction. Journal Environmental Engineering Division, ASCE. 105(EE2). (Cited in EPA 1985 op.cit.)

APPENDIX A--PUBLIC INVOLVEMENT INFORMATION

The Department has tentatively determined to reissue a permit to the applicant listed on page 1 of this fact sheet. The permit contains conditions and effluent limitations which are described in the rest of this fact sheet.

Public notice of application was published on March 20, 2004, and March 27, 2004, in the *Daily Chronicle* to inform the public that an application had been submitted and to invite comment on the reissuance of this permit.

The Department will publish a Public Notice of Draft (PNOD) on May 2, 2005, in the *Daily Chronicle* to inform the public that a draft permit and fact sheet are available for review. Interested persons are invited to submit written comments regarding the draft permit. The draft permit, fact sheet, and related documents are available for inspection and copying between the hours of 8:00 a.m. and 5:00 p.m. weekdays, by appointment, at the regional office listed below. Written comments should be mailed to:

Industrial Unit Permit Coordinator
Department of Ecology
Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504-7775

Any interested party may comment on the draft permit or request a public hearing on this draft permit within the 30-day comment period to the address above. The request for a hearing shall indicate the interest of the party and reasons why the hearing is warranted. The Department will hold a hearing if it determines there is a significant public interest in the draft permit (WAC 173-220-090). Public notice regarding any hearing will be circulated at least 30 days in advance of the hearing. People expressing an interest in this permit will be mailed an individual notice of hearing (WAC 173-220-100).

Comments should reference specific text followed by proposed modification or concern when possible. Comments may address technical issues, accuracy and completeness of information, the scope of the facility's proposed coverage, adequacy of environmental protection, permit conditions, or any other concern that would result from issuance of this permit.

The Department will consider all comments received within 30 days from the date of public notice of draft indicated above, in formulating a final determination to issue, revise, or deny the permit. The Department's response to all significant comments is available upon request and will be mailed directly to people expressing an interest in this permit.

Further information may be obtained from the Department by telephone, (360) 407-6285, or by writing to the address listed above.

This permit and fact sheet were written by Gary Anderson, P.E.

APPENDIX B--GLOSSARY

Acute Toxicity--The lethal effect of a compound on an organism that occurs in a short period of time, usually 48 to 96 hours.

AKART-- An acronym for "all known, available, and reasonable methods of treatment".

Ambient Water Quality--The existing environmental condition of the water in a receiving water body.

Ammonia--Ammonia is produced by the breakdown of nitrogenous materials in wastewater. Ammonia is toxic to aquatic organisms, exerts an oxygen demand, and contributes to eutrophication. It also increases the amount of chlorine needed to disinfect wastewater.

Average Monthly Discharge Limitation --The average of the measured values obtained over a calendar month's time.

Best Management Practices (BMPs)--Schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State. BMPs include treatment systems, operating procedures, and practices to control: plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. BMPs may be further categorized as operational, source control, erosion and sediment control, and treatment BMPs.

BOD₅--Determining the Biochemical Oxygen Demand of an effluent is an indirect way of measuring the quantity of organic material present in an effluent that is utilized by bacteria. The BOD₅ is used in modeling to measure the reduction of dissolved oxygen in a receiving water after effluent is discharged. Stress caused by reduced dissolved oxygen levels makes organisms less competitive and less able to sustain their species in the aquatic environment. Although BOD is not a specific compound, it is defined as a conventional pollutant under the federal Clean Water Act.

Bypass--The intentional diversion of waste streams from any portion of a treatment facility.

Chlorine--Chlorine is used to disinfect wastewaters of pathogens harmful to human health. It is also extremely toxic to aquatic life.

Chronic Toxicity--The effect of a compound on an organism over a relatively long time, often 1/10 of an organism's lifespan or more. Chronic toxicity can measure survival, reproduction or growth rates, or other parameters to measure the toxic effects of a compound or combination of compounds.

Clean Water Act (CWA)--The Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, 97-117; USC 1251 et seq.

Compliance Inspection - Without Sampling--A site visit for the purpose of determining the compliance of a facility with the terms and conditions of its permit or with applicable statutes and regulations.

Compliance Inspection - With Sampling--A site visit to accomplish the purpose of a Compliance Inspection - Without Sampling and as a minimum, sampling and analysis for all parameters with limits in the permit to ascertain compliance with those limits; and, for municipal facilities, sampling of influent to ascertain compliance with the 85 percent removal requirement. Additional sampling may be conducted.

Composite Sample--A mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite"(collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increased while maintaining a constant time interval between the aliquots.

Construction Activity--Clearing, grading, excavation and any other activity which disturbs the surface of the land. Such activities may include road building, construction of residential houses, office buildings, or industrial buildings, and demolition activity.

Critical Condition--The time during which the combination of receiving water and waste discharge conditions have the highest potential for causing toxicity in the receiving water environment. This situation usually occurs when the flow within a water body is low, thus, its ability to dilute effluent is reduced.

Dilution Factor--A measure of the amount of mixing of effluent and receiving water that occurs at the boundary of the mixing zone. Expressed as the inverse of the percent effluent fraction e.g., a dilution factor of 10 means the effluent comprises 10% by volume and the receiving water 90%.

Engineering Report--A document which thoroughly examines the engineering and administrative aspects of a particular domestic or industrial wastewater facility. The report shall contain the appropriate information required in WAC 173-240-060 or 173-240-130.

Fecal Coliform Bacteria--Fecal coliform bacteria are used as indicators of pathogenic bacteria in the effluent that are harmful to humans. Pathogenic bacteria in wastewater discharges are controlled by disinfecting the wastewater. The presence of high numbers of fecal coliform bacteria in a water body can indicate the recent release of untreated wastewater and/or the presence of animal feces.

Grab Sample--A single sample or measurement taken at a specific time or over as short period of time as is feasible.

Industrial Wastewater--Water or liquid-carried waste from industrial or commercial processes, as distinct from domestic wastewater. These wastes may result from any process or activity of industry, manufacture, trade or business, from the development of any natural resource, or from animal operations such as feed lots, poultry houses, or dairies. The term includes contaminated storm water and, also, leachate from solid waste facilities.

Major Facility--A facility discharging to surface water with an EPA rating score of > 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Maximum Daily Discharge Limitation--The highest allowable daily discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. The daily discharge is calculated as the average measurement of the pollutant over the day.

Method Detection Level (MDL)--The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is above zero and is determined from analysis of a sample in a given matrix containing the analyte.

Minor Facility--A facility discharging to surface water with an EPA rating score of < 80 points based on such factors as flow volume, toxic pollutant potential, and public health impact.

Mixing Zone--An area that surrounds an effluent discharge within which water quality criteria may be exceeded. The area of the authorized mixing zone is specified in a facility's permit and follows procedures outlined in state regulations (Chapter 173-201A WAC).

National Pollutant Discharge Elimination System (NPDES)--The NPDES (Section 402 of the Clean Water Act) is the Federal wastewater permitting system for discharges to navigable waters of the United States. Many states, including the State of Washington, have been delegated the authority to issue these permits. NPDES permits issued by Washington State permit writers are joint NPDES/State permits issued under both State and Federal laws.

pH--The pH of a liquid measures its acidity or alkalinity. A pH of 7 is defined as neutral, and large variations above or below this value are considered harmful to most aquatic life.

Quantitation Level (QL)-- A calculated value five times the MDL (method detection level).

Responsible Corporate Officer-- A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures (40 CFR 122.22).

Technology-based Effluent Limit--A permit limit that is based on the ability of a treatment method to reduce the pollutant.

Total Suspended Solids (TSS)--Total suspended solids is the particulate material in an effluent. Large quantities of TSS discharged to a receiving water may result in solids accumulation. Apart from any toxic effects attributable to substances leached out by water, suspended solids may kill fish, shellfish, and other aquatic organisms by causing abrasive injuries and by clogging the gills and respiratory passages of various aquatic fauna. Indirectly, suspended solids can screen out light and can promote and maintain the development of noxious conditions through oxygen depletion.

State Waters--Lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington.

Stormwater--That portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, pipes, and other features of a storm water drainage system into a defined surface water body, or a constructed infiltration facility.

Upset--An exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, lack of preventative maintenance, or careless or improper operation.

Water Quality-based Effluent Limit--A limit on the concentration of an effluent parameter that is intended to prevent the concentration of that parameter from exceeding its water quality criterion after it is discharged into a receiving water.

APPENDIX C --RESPONSE TO COMMENTS

On June 1, 2005, the Department received comments from Mr. Rod Kause of TransAlta Centralia Generation LLC on the Permit. The comments and response to comments follow.

1. **Comment:** Page 1 of 32, Facility Information

The statement "This is a NPDES major facility...." Should be located outside the facility information box

Response:

This has been corrected

2. **Comment:** Page 5 of 32, Section A, Table Effluent Limitations: Outfall #001

Ecology has described Dissolved Oxygen (DO) for Outfall # 001 on Page 7 of the Fact Sheet and defined as follows:

"Dissolved Oxygen: Ecology sets this limit at a minimum of 8 mg/L in the receiving water, as required by WAC 173-210A. Sampling is done upstream and down stream to determine the effect of the discharge on the receiving water."

The Effluent Limitations table for Outfall 001 does not identify the location at which the minimum DO limit of 8.0 mg/L applies. As the table is written it would be assumed that the limit applies to the discharge from Outfall 001, however the description in the Fact Sheet implies that it is the receiving stream. We believe the limit applies to the receiving stream but would like clarification put in the table or corrected in the fact sheet.

The average monthly description for Temperature and Turbidity that is under the Average Monthly limit should also be under the Maximum Daily, since the limit for both are exactly the same. There is no difference between the Average Monthly and Maximum Daily limit.

Testing frequency for Priority Pollutants less Chromium and Zinc were originally set at once per Permit Renewal period in previous permits. We believe the frequency should remain at "once per permit renewal period" rather than annually. The justification for the reduction is that none of the Priority Pollutants have been detected at anything greater than the detection limit (with the exception of some metals which may be left in the permit).

If the requirement to test annually for Priority Pollutants remains in the permit, the limit of zero is not achievable and should be set at the detection limit for each parameter rather than zero.

Response:

The sampling point for all parameters that are defined by direct measurement is in the parshall flume. Measurement for those parameters defined as “increase over background” is taken in Hanford Creek above and below the outfall. The sentence is clarified.

The “average monthly description for Temperature and Turbidity that is under the Average Monthly limit should also be under the Maximum Daily, since the limit for both are exactly the same” has been corrected.

This is true that the “Testing frequency for Priority Pollutants less Chromium and Zinc were originally set at once per Permit Renewal period in previous permits. We believe the frequency should remain at “once per permit renewal period” rather than annually.” We have corrected this error.

3. **Comment:** Page 6 of 32, Section A, Table Effluent Limitations: Outfall #002

Footnote C states “The sampling point for TSS shall be just before the effluent enters the oxidation Pond, V notch case.”

We suggest that it state “The sampling point for TSS shall be just before the effluent enters the Oxidation Pond, at the V-Notch Weir in the clarifier section of the Sewage Treatment Plant.”

Response:

The Permittee’s version is accepted and has been added.

4. **Comment:** Page 7 of 32, Section B, Table Effluent Limitations Outfall #005

Currently, several parameters are referenced in the Fact Sheet but are not reflected in the Permit. Specifically, DO and Turbidity are not in the Effluent Limitations Table for Outfall 005. They should either be added to the Permit or removed from the Fact Sheet on page 7.

These limitations would only apply if we are discharging. We have tied in Outfall 005 into the our existing water management infrastructure.

Response:

Outfall 005 has been eliminated

5. **Comment:** Page 7 of 32, Section C, Table 1 Groundwater Monitoring Criteria

In regards to establishing limits for groundwater, because background levels of various parameters are directly affected by geological formations and geographic

area, we request that the permitted limit include a provision to account for background concentrations; specifically a clause that states: “OR 10% above the background well, which ever is greater”.

The “No Toxics in Toxic Amounts” language is unclear and requires more clarification. We request that Ecology instead provide specific references to the regulations that list numerical limits for toxic materials.

Response:

This is premature. If in the future groundwater samples do exceed the limits, then the Permittee may request that due to “overriding public interest” the limits be increased to 10 percent over background.

The “No toxics in toxic amounts” cannot be changed because it is the actual wording in the regulation so this will be retained.

6. **Comment:** Page 8 of 32, Section S2, Table A. Monitoring Schedule, Outfall 001

Priority pollutants were previously monitored at a frequency of “once per permit renewal period”, not annually. We request that, consistent with prior Permit requirements, monitoring frequency for priority pollutants remain once per permit renewal period. TransAlta considers this appropriate because previous testing has not identified any detectable priority pollutants, with the exception of an occasional metal at very low concentrations.

If the Priority Pollutant monitoring schedule remains on an annual basis, then Table 1 should be revised to exclude Arsenic, Cadmium, Lead, Mercury, Selenium, Silver, Chromium and Zinc, which are already addressed as Priority Pollutants (Appendix A Part 423 – 126)

The average monthly description for Temperature and Turbidity that is under the Average Monthly limit should also be under the Maximum Daily, since the limit for both are exactly the same. There is no difference between the Average Monthly and Maximum Daily limit.

Response:

Agreed. This error has been corrected.

7. **Comment:** Page 9 of 32, Section S2, Table A. Monitoring Schedule, Outfall 001

Footnote 1 and 2 at the bottom the table must be modified. Currently, they read:

¹ Twice annually is defined as monitoring and reporting in June and December of each year.

² Annually is defined as monitoring and reporting in December of each year.”

Logistically, TransAlta cannot monitor and report in the same month. If we monitor in December, we can, at the earliest, report the results the following month in the December DMR (which is due in January). Therefore the wording should read:

“² Annually is defined as monitoring in December and reporting in the December DMR of each year.”

And

“¹ Twice annually is defined as monitoring in June and December, and reporting in the June and December DMR of each year”.

Testing frequency for Priority Pollutants less Chromium and Zinc were originally set at once per Permit Renewal period in previous permits. We believe the frequency should remain at “once per permit renewal period” rather than annually.

Response:

Agreed. The footnote is altered to remove “and report”.

8. **Comment:** Page 9 of 32, Section C Wastewater Monitoring, Spray Fields, Outfall 4

The Draft states “The sampling point for the effluent from the above ground treatment works will be at the North Effluent Pond pump discharge prior to discharging into **and** the sprayfields”

Delete “and” to read: “The sampling point for the effluent from the above ground treatment works will be at the North Effluent Pond pump discharge prior to discharging into the sprayfields.”

Response:

The word “and” has been eliminated from the text.

9. **Comment:** Page 11 of 32, Section E2,

The “Ground Water Monitoring” table frequency proposes quarterly monitoring and analysis throughout the life of the Permit. While quarterly monitoring is appropriate for the first year in order to determine a baseline, annual monitoring is sufficient on a longer term basis to provide accurate data and assessment of groundwater. By its nature, changes in groundwater quality are slow to occur and annual testing will provide appropriate data.

Response:

If the Permittee can demonstrate that a reduced sampling frequency is sufficient after a year of monitoring, he can petition Ecology to reduce the sampling frequency at that time.

10. **Comment:** Page 20 or 32, Section C Irrigation of Land Application

Section 3 a states: “Significantly reduce or destroy the long-term infiltration rate of the soil.” it is unclear what quantity or application rate might reduce long term infiltration rate.

Response:

This is a broad statement not intended to state a limit with precision. Whether or not the long term infiltration rate is reduced will be a matter of observation of the application area.

11. **Comment:** Page 23 or 32, Section S9. Chronic Toxicity

There are two sets of testing and reporting requirements on pages 23 and then on page 23 and 25. It is unclear which testing and reporting requirements should be followed. One set should be deleted to avoid confusion or clarification should be provided around two sets of reporting and testing requirements.

Response:

A complete new set of whole effluent testing requirements is inserted in place of Special Condition S8. and S9.

12. **Comment:** Page 32 of 32, Section A

Point 2 States “...and one milligram per liter (1ug/L) for Antimony.”
There is an error, the unit should be either ug/L or mg/L but unsure of which it is.

Response:

These limits have been corrected.

13. **Comment:** Page 32 of 32, Section B

Point 1 States “Five Hundred micrograms per liter (500 mg/L)”
There is an error, the unit should be either ug/L or mg/L but unsure which it is.

Response:

These limits have been corrected to read (500 µg/L).

Comments received on the Fact Sheet for TransAlta Centralia Generating.

Comment 1

Page 2 History

The Fact Sheet currently states:

“This plant has been in continuous operation since 1971. In order to comply with new regulations, TransAlta installed a wet flue gas desulphurization system in 2001 to reduce Sulfur Dioxide emissions at the plant. Construction of a 248 megawatt natural gas-fired combined cycle combustion turbine facility was completed in 2002, supplementing the coal-fired plant. It is now and has always been an NPDES major facility.”

The actual output for the facility is 260 megawatts, not 248 megawatts.

Response 1

True. The actual output for the facility is 260 megawatts and not 248 megawatts.

Comment 2

Page 2, Industrial Process

The Fact Sheet currently states:

“It can generate 1,405,000 kilowatts of electricity from the coal fired facility and 48,000 kilowatts of electrical power from the gas fired plant (BHP).”

48,000 kilowatts should be 260,000 kilowatts.

The Fact Sheet currently states:

“Between 45.0 and 129.6 million gallons of wastewater are applied to tow areas”

tow should be replaced with two.

Response 2

True.

Comment 3

Page 4, Tables 1 and 2

The values in the fact sheet do not correspond to data provided by TransAlta Centralia Generation in the permit application. The values appear to be incorrect.

a. Table 1 shows Total Residual Chlorine at 0.11 mg/L as a typical concentration. Our limit is 0.10 mg/L, therefore this table would imply that TransAlta is typically out of compliance with the permit. This should be corrected to reflect actual discharge concentrations.

b. Table 1 and 2 shows Fecal Coliforms with a unit of mpm/100 ml, mpm is a unit that is unknown, perhaps ppm was intended, however even ppm/100 ml is not logical. Please clarify the unit intended.

c. Table 2 shows Total Residual Chlorine at 1.16 mg/L and Flow at 15000 gpd which are both high compared to typical discharge from Outfall 002. Please see DMR summaries for 2001, 2002, and 2003 submitted with Permit Application.

Response 3

a. Page V-1 of Form 2-C of the permit application from TransAlta shows a total residual Chlorine concentration of 0.12 mg/L as the daily maximum concentration and 0.11 mg/L as the average concentration. A review of the Ecology database shows an average concentration of 0.04 mg/L for an average concentration and a maximum concentration of 0.26 mg/L. The limit stated on page 5 of 32 of the permit is 0.20 mg/L, approximately twice the total concentration shown in the application. The detection limit shown for Standard Method 4500 C1G is 10 µg/L. To resolve all this, let us say that the Permittee has only exceeded the limit of 0.02 once in about 5 years, so that the total residual chlorine limit stated for outfall 001 seems reasonable.

b. Page 4, Tables 1 and 2. The unit mpm/100 mL should be #/100 mL.

c. Ecology used a different sampling period for arriving at the numbers shown in Table 2. Ecology's results in Table 2 fall between the monthly average and the maximum daily results in the application.

Comment 4

Page 6, Technology Based Effluent Limitations

Outfall 001

Total residual chlorine is currently set at the Minimum Detection limit. As previously discussed, this should instead be set at the Reliable Detection Limit which is defined as twice the Minimum Detection Limit.

Currently Page 6 of the Fact Sheet states "Total Residual Chlorine: This limit is set at the detection limit"

This should be corrected to read "This limit is set at twice the Minimum Detection Limit OR This Limit is set at the Reliable Detection Limit, which is twice the Minimum Detection Limit."

Response 4

See response 3a.

Comment 5

Page 7, Outfall 002

Chlorine Residual states “The meaningful limit at this site is the chlorine residual at outfalls 001 and 005 which do discharge to waters of the state.” Outfall 005 does not have a chlorine residual limit, and is now redirected back into our CPRO pond system rather than direct discharge to surface water.

Response 5

Acknowledged. How fact sheets are not edited in the public notice period.

Comment 6

Page 7, Outfall 005

Outfall 005 does not have limits for Dissolved Oxygen or Turbidity, therefore the description of how the limits were derived should be removed.

Response 6

True.

Comment 7

Page 10, Second Paragraph and third paragraphs

Two paragraphs are a duplicate of the two previous paragraphs and should be deleted.

The paragraph that states “The WET test during effluent characterization indicated that no reasonable....” And “If the Permittee makes process or material changes which, in the Department’s....” should both be deleted.

Response 7

The 10 percent exceedance mentioned here is granted only under exceptional circumstance. Automatic permission to exceed is not granted.

Comment 8

Page 11, Groundwater Section:

The groundwater Section currently states “The Department has reviewed existing records and is unable to determine if background ground water quality is either higher or lower than the criteria given in Chapter 173-200 WAC; therefore, the Department will use the criteria expressed in the regulation in the proposed permit. The discharges authorized by this proposed permit are not expected to interfere with beneficial uses.”

We propose adding to the above the following language: “Department will use the criteria expressed in the regulation in the proposed permit or 10% above background, which ever is greater.”

Response 8

True.

Comment 9

Page 11, Comparison of effluent limits

The title of the table should be updated to the current permit. It currently states: “Comparison of Effluent Limits with the Existing Permit Issued November 7, 1995.” It should state “Comparison of Effluent Limits with the Existing Permit Issued July 14, 2000.”

Response 9

See response 3a.

Comment 10

Page 12, Outfall 002

The table has incorrect limits for Chlorine Residual. The limit for Outfall 002 is 2.0 mg/L Residual Chlorine, this is for the average and maximum for both the existing and proposed limit. Currently 0.1, 10.0 and 0.2 are listed as limits, none of which are correct.

Response 10

Outfall 005 has been eliminated. The table has not been altered.

Comment 11

Page 12, Outfall 005

Page 7 of the permit has Temperature as an existing and proposed limit, therefore Temperature should be included in the Outfall 005 table.

Response 11

True.

Comment 12

Page 13, Treatment Operating Plan

The Fact Sheet states in part “An operation and Maintenance manual will be submitted as required by state regulation for the construction of wastewater treatment facilities.” However Page 17, Section S4, Operations and Maintenance Manual, states; “The O & M manual submitted with the permit application is accepted. An updated O & M manual shall be submitted with the application for permit renewal by February 1, 2009.”

Therefore the fact sheet should state that an operation and Maintenance manual has been submitted as required by state regulation, and accepted by Ecology.

Response 12

True.

Comment 13

Page 15, Appendix A – Public Involvement Information

Appendix A, second paragraph states “Public notice of application was published on March 20, 2004 and March 27, 2004, in the Daily Chronicle...”

The dates should be March 20, 2005 and March 27, 2005.

Response 13

The public notice for application was published on March 20, 2004 and March 27, 2004.